A NEW HYBRID FERN

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Dryopteris filix-mas x marginalis hyb. nov.

Crown and scales at the base of the stipe as in the two parent species. Fronds dark green above, considerably paler beneath, bipinnate, usually 70–90 cm. long, 20–25 cm. broad, broadest at the middle or a little above, acuminate; rachis somewhat chaffy throughout; pinnæ narrowly lanceolate, tapering from near the middle to an acuminate point; pinnulæ oblong, the basal ones crenate and somewhat falcate; sori nearer the margin than the midvein, nearer the end than the base of the veinlets to which they are attached; indusia convex, depth of sinus variable.

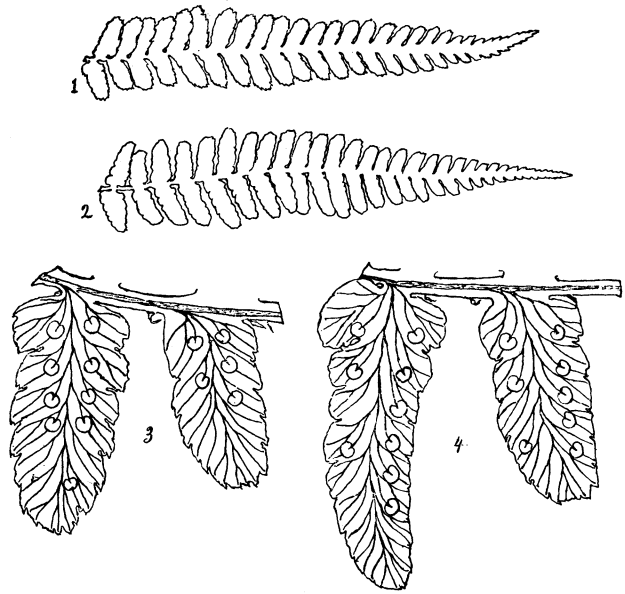
This fern is intermediate between the parent species in color, in outline of the pinnæ and of the pinnulæ, in venation, and in the position of the sori. As far as I have examined, perfect spores are wanting, the sporangia appearing practically empty.

On July 6th of the past summer, I joined a party of fourteen members of the Vermont Botanical Club, on an excursion to North Bridgewater, Vt., to visit the station for *Dryopteris filix-mas*. The party was guided by Miss Nelson, the discoverer of the station. Considering the close relation of the two ferns, I anticipated a hunt for the hybrid, and it was hardly a surprise, though it was a great satisfaction, when I found, almost immediately after alighting from the carriage, first *D. marginalis* and then the hybrid. Several other plants of the hybrid were discovered by members of the party, and though the temptation was considerable, I think none of them was entirely stripped.

Of the five fronds secured by me, I have presented one to the American Fern Society Herbarium, one to the herbarium of the New England Botanical Club, one to the herbarium of the New York Botanical Garden,

and I have two in my collection. Mr. H. G. Rugg has presented material for the Dartmouth College collection, Mr. J. G. Underwood has placed specimens in the collection of the Hartland Nature Club, and others have provided material for the Vermont Botanical Club Herbarium.

The accompanying figures illustrate several points of comparison between a large plant of *D. filix-mas* and



Figs. 1 and 2.—Median pinnæ of *D. filix-mas* and the hybrid (reduced).
Figs. 3 and 4.—Lower pinnulæ from the same (enlarged).

the hybrid. The outlines and position of the fruit are traced from camera projections, the veining was drawn in free hand with the aid of a dissecting lens.

A rather unusual form of what I supposed to be *Dryopteris Clintoniana* x *marginalis* Slosson was found within twenty or thirty feet of my first *filix-mas* hybrid.

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